



Research Article

A Study on Influencing Factors of Nurses' Postgraduate Entrance Examination Intention Based on The Theory of Planned Behavior

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Abstract

Objective Based on the Theory of Planned Behavior (TPB), this study explores the influencing factors of nurses' intention to take the postgraduate entrance examination, so as to provide a theoretical basis for nursing administrators to formulate policies supporting nurses' academic upgrading. Methods Purposive sampling was adopted. From January 2026 to April 2026, 18 in-service nurses from a tertiary Grade A general hospital in a city were selected for semi-structured interviews. The interview outline was designed under the framework of TPB, and Colaizzi's 7-step analytical method was used to sort, code and extract themes from interview data. Results Three core themes and eight sub-themes were summarized: behavioral attitude (positive attitude driven mainly by external factors, negative attitude arising from imbalance between pressure and rewards); subjective norm (leadership pressure, peer influence, academic threshold set by society and workplace); perceived behavioral control (differentiated self-efficacy, dilemma of resource allocation, conflict between physical and mental workload). Most nurses showed moderately low intention to pursue postgraduate studies. External driving factors were far stronger than internal motivations, and the conflict between time and energy was the primary restrictive factor. Conclusion Nurses' intention to take postgraduate entrance examinations is jointly affected by behavioral attitude, social norms and perceived behavioral control. Under the current circumstances, external pressure serves as the main driving force, while practical dilemmas significantly inhibit the transformation of intention into action.

Hospitals should implement systematic interventions from three dimensions: policy incentives, environmental support and psychological construction, to help nurses remove the final barriers to academic advancement.

Keywords: Nurses; Postgraduate entrance examination intention; Theory of Planned Behavior; Influencing factors; Qualitative research

Introduction

In recent years, academic requirements for nursing positions in tertiary hospitals have been rising year by year. Bachelor's degree has become the minimum entry standard for junior posts, and

master's degree brings substantial bonus points for professional title promotion. Pursuing postgraduate studies has become an essential choice for nurses to break career bottlenecks. However, clinical nurses commonly face the dilemma of "having the desire but lacking the ability to act". Existing relevant researches mostly adopt quantitative analysis, lacking in-depth exploration of real frontline predicaments. Based on the Theory of Planned Behavior, this study conducted interviews with 18 in-service nurses to

analyze multi-dimensional factors affecting their postgraduate entrance examination intention, and provide evidence for hospitals to improve supporting policies for academic upgrading.

Materials and Methods

General Information of Participants

Purposive sampling was applied to recruit in-service registered nurses from a tertiary Grade A general hospital for face-to-face semi-structured interviews between January and April 2026. Inclusion criteria: (1) Holding a valid nurse practice certificate and being fully registered as an in-service nurse; (2) Working experience of no less than 1 year; (3) Self-reported “possible” or “very likely” intention to sit for postgraduate entrance examinations within the next two years; (4) Voluntary participation with signed informed consent.

Exclusion criteria: (1) Currently pursuing or already holding a master’s degree; (2) Explicitly stating no plan to take postgraduate examinations within the past three years; (3) Intern, trainee or visiting nurses. Sample size was determined based on data saturation. A total of 18 nurses were finally included. General information of participants is shown in Table 1.

No.	Gender	Age (Years)	Education	Professional Title	Working Years	Marital Status	Previous Postgraduate Exam Experience
N1	Female	25	Bachelor	Nurse	1	Unmarried	No
N2	Female	28	Bachelor	Nurse-In-charge	5	Married	Yes (Unadmitted)
N3	Male	30	Bachelor	Nurse-In-charge	7	Unmarried	No
N4	Female	33	Bachelor	Supervisor Nurse	9	Married	No
N5	Female	26	College	Nurse	2	Unmarried	No
N6	Female	35	Master	Supervisor Nurse	11	Married	Yes (Admitted)
N7	Male	37	Bachelor	Supervisor Nurse	13	Married	No
N8	Female	41	Bachelor	Deputy Chief Nurse	18	Married	No
N9	Female	24	Bachelor	Nurse	1	Unmarried	No
N10	Female	29	Bachelor	Nurse-In-charge	5	Married	Yes (Unadmitted)
N11	Female	36	College	Supervisor Nurse	14	Married	No
N12	Female	27	Bachelor	Nurse-In-charge	6	Unmarried	No
N13	Female	39	Bachelor	Supervisor Nurse	16	Married	No
N14	Female	31	Bachelor	Nurse-In-charge	8	Married	No
N15	Female	34	Bachelor	Supervisor Nurse	11	Married	Yes (Unadmitted)
N16	Male	26	Bachelor	Nurse	2	Unmarried	No
N17	Female	42	Bachelor	Deputy Chief Nurse	19	Married	No
N18	Female	29	Bachelor	Nurse-In-charge	6	Married	No

Table 1: General Information of Participants (n=18).

Research Methods

Interview Outline

Based on the Theory of Planned Behavior (TPB) [1], the semi-structured interview outline was developed through literature review and expert consultation. Core questions covered three dimensions of TPB (behavioral attitude, subjective norm, perceived behavioral control) plus behavioral intention, including: overall views on nursing postgraduate entrance examinations and evaluation of pros and cons; perceived expectations and pressure from leaders, colleagues, family or industry regulations; self-assessed exam preparation conditions and major difficulties (time, information, finance, self-confidence, etc.); future postgraduate exam intention and required supporting resources.

Data Collection

Face-to-face semi-structured interviews were conducted. Before interviews, researchers contacted participants in advance, explained research purposes and obtained signed informed consent. Interviews took place in quiet, private tutorial rooms or meeting rooms, lasting 25 to 40 minutes each. With participants’ permission, full audio recordings were made, together with notes of nonverbal behaviors. All participants were identified by serial numbers to protect privacy. Data collection stopped when thematic saturation was achieved, and no new themes emerged after interviewing two additional participants.

Data Analysis

Within 24 hours after each interview, two researchers transcribed audio recordings into full texts. Colaizzi’s 7-step phenomenological analysis [2] was adopted: (1) Read all transcripts thoroughly to form a holistic impression; (2) Extract meaningful statements; (3) Code recurring viewpoints; (4) Classify codes into themes

and sub-themes; (5) Write complete thematic descriptions; (6) Identify similar themes and construct the essential structure of the phenomenon; (7) Return analytical results to participants for verification. NVivo 14.0 software was used to assist coding and data management.

Quality Control

All researchers received unified training on qualitative research. Data collection and analysis were completed independently by two researchers, with cross-checking to reach consensus. Member checking was conducted by feeding back analytical results to partial participants for confirmation. All audio recordings, transcribed texts and coding records were retained for traceability.

Results

After analyzing interview data of 18 nurses under the TPB framework, 3 core themes and 8 sub-themes were summarized (Table 2).

Core Theme	Sub-theme	Number of Participants Mentioning
Behavioral Attitude	Positive attitude: dominated by pressure and expected rewards Leadership pressure: institutional	13
	supplemented by internal pursuit Negative attitude: perceived imbalance between investment	12
	Subjective Norm expectations and administrative requirements	11
	Peer influence: role model inspiration and peer competition	14
	Social and workplace norms: external driving force of rising academic thresholds	15
Perceived Behavioral Control	Differentiated self-efficacy: confidence gaps and experience divides	15
	Dilemma of resource allocation: information asymmetry and institutional vacancies	16
	Conflict of physical and mental workload: unresolvable triple predicament	17

Table 2: Core Themes and Sub-themes.

Positive Attitude: Dominated by External Driving Forces, Supplemented by Internal Pursuit

Most participants held positive attitudes toward pursuing postgraduate studies, yet external motivations far outweighed internal aspirations. The most frequently cited positive incentives centered on tangible benefits including career promotion, academic thresholds and salary gaps. In terms of professional promotion, most nurses reported revised hospital title evaluation policies: master's degree carries significant quantitative bonus points for promotion from supervisor nurse to deputy chief nurse, and many nurses were blocked from promotion due to lack of postgraduate qualifications. For academic thresholds, many participants noted that tertiary hospitals continuously raise recruitment standards; bachelor's degree has become the minimum entry requirement, and master's degree may become a universal standard in the future. Regarding salary differences, nurses observed that holders of master's degrees earn higher performance pay and post allowances under identical seniority and job responsibilities, forming a direct incentive to take postgraduate exams. Existing studies have verified that such external drivers strengthen nurses' motivation for postgraduate education [3]. A small number of participants expressed internal aspirations: they hoped to improve clinical thinking, research capacity and professional depth, and escape shift work in frontline clinical settings by pursuing postgraduate degrees. Nevertheless, internal motivation accounted for a far smaller proportion of positive attitudes than external pressure.

Negative Attitude: Perceived Imbalance Between Investment Pressure and Expected Rewards

While recognizing the value of postgraduate education, a considerable number of nurses expressed anxiety and hesitation over the tremendous hardships of exam preparation and uncertain returns. Many nurses with negative attitudes believed that time costs, financial expenditure and physical and mental exhaustion during preparation were extremely high,

yet postgraduate rewards were unpredictable. Some participants mentioned that colleagues with master's degrees still worked in frontline clinical posts; apart from marginal advantages in title promotion, daily duties barely changed, leading to unfavorable input-output ratios. Senior nurses with over ten years of service stated that their memory and energy for standardized examinations had declined, deeming specialist nurse certification a more practical choice than a three-year master's program. Some participants grew weary of academic credential inflation, arguing that nursing centers on clinical care rather than academic competition, and excessive industry emphasis on degrees deviates from professional missions. Financial burden also fostered negative attitudes: training fees, reference materials and tuition imposed substantial economic

pressure, especially for married nurses with children who bore heavy household financial responsibilities.

Subjective Norm

Leadership Pressure: Institutional Expectations and Administrative Requirements

Expectations and requirements from head nurses, nursing department administrators and hospital management generated prominent institutional pressure on nurses' postgraduate exam intentions. Most participants reported that department supervisors publicly tracked exam registration and scores in monthly meetings, forming an open supervisory atmosphere. In addition, some nurses stated that departmental postgraduate admission rates were linked to supervisors' performance assessments, further intensifying management mobilization. Conversely, some head nurses applied to the nursing department for dedicated exam preparation leave and adjusted shift schedules to provide tangible support. Such differentiated management styles led to distinct disparities in perceived leadership pressure across departments.

Peer Influence: Role Model Inspiration and Peer Competition

Colleagues exerted bidirectional impacts on nurses' decisions to pursue postgraduate education. On the positive side, master's-prepared colleagues demonstrated evidence-based clinical reasoning and research competence, acting as positive role models and stimulating learning motivation. Peer study groups for exam preparation and shared learning resources also cultivated a collective learning atmosphere. On the negative side, cases of failed postgraduate examinations exerted a strong discouraging effect: participants witnessed the severe physical and

mental toll on unsuccessful candidates and grew fearful of the competitive exam process. Moreover, implicit academic competition in merit evaluation and post selection triggered anxiety rather than proactive action among some nurses.

Social and Workplace Norms: External Driving Force of Rising Academic Thresholds

Deeper than leadership and peer influence was the continuous elevation of academic requirements across the nursing industry and society. Most participants noticed a sharp increase in master's-level recruitment positions in major hospitals, with bachelor's degrees merely qualifying candidates for junior clinical posts. Some nurses mentioned that nursing has become a first-level discipline, heightening the value of master's graduates and specialist nurses as industry development priorities.

Several participants admitted that their initial motivation to consider postgraduate studies stemmed from the general sense of urgency brought by industry-wide academic upgrading, rather

than pressures from departments or families.

Perceived Behavioral Control

Differentiated Self-efficacy: Confidence Gaps and Experience Divides

Nurses' self-confidence in successfully passing postgraduate examinations displayed clear polarization. Young nurses with recent graduation retained consistent study habits and solid English foundations, reporting relatively high self-efficacy. In contrast, senior nurses with long working years faced severe confidence crises: most stated they had forgotten foundational knowledge, especially fearing public courses including English and politics. Nurses with previous exam failures suffered damaged self-confidence, and some abandoned retaking examinations entirely. Marital and parental status also shaped

self-efficacy: unmarried nurses enjoyed more spare time and higher confidence, while married nurses with children lacked faith in their ability to balance preparation amid multiple family roles.

Dilemma of Resource Allocation: Information Asymmetry and Institutional Vacancies

The vast majority of participants reported systematic shortages in access to postgraduate exam information, preparation resources and institutional support. Information asymmetry stood out as the most prominent barrier: most nurses lacked clear knowledge of nursing

postgraduate exam subjects, university admission policies, reference books and review strategies. Fragmented and unvalidated online information failed to provide authoritative, systematic guidance.

Hospitals rarely established standardized support systems for postgraduate candidates: no dedicated information platforms, exam coaching, psychological counseling, tuition subsidies or reimbursement policies were available. Nurses relied entirely on individual efforts to navigate preparation independently.

Conflict of Physical and Mental Workload: Unresolvable Triple Predicament

Among all dimensions of perceived behavioral control, conflicts over time and energy were the most frequently mentioned and intensely felt barrier, essentially arising from overlapping demands of work, family and study. Most participants described heavy clinical workloads and irregular rotating shifts, leaving insufficient energy for systematic review after work. Married nurses raising children struggled to allocate time between clinical duties, childcare and exam preparation. Young nurses without family burdens still faced time constraints due to early-career

clinical skill training demands. Many nurses expressed that even with clear postgraduate intentions, they could not squeeze out sufficient effective study hours amid daily responsibilities. This sense of powerlessness constituted the core obstacle preventing intention from translating into action.

Overall Behavioral Intention

Synthesizing all above factors, only a small minority of the 18 participants reported high likelihood of taking postgraduate examinations within two years. Most nurses were uncertain or deemed the possibility low. Overall postgraduate exam intention remained moderately low. Although most nurses acknowledged the value of postgraduate education, tangible constraints weakened positive attitudes and blocked behavioral transformation. Several participants explicitly stated they "wanted to take the exam but could not manage it", and reported drastically increased willingness if hospitals offered flexible scheduling, tuition subsidies or dedicated study leave. Others remained on the sidelines, waiting for improved conditions before making concrete plans without clear action intentions.

Discussion

Attitudinal Characteristics Dominated by External Drivers and Targeted Guidance Strategies

This study found that nurses' positive attitudes toward postgraduate education are primarily driven by external incentives including promotion prospects, salary gaps and rising academic thresholds, with internal professional identification as a secondary factor. This characteristic aligns with nationwide trends of rapid academic upgrading in nursing: the proportion of nurses holding bachelor's degrees or higher has risen sharply, recruitment thresholds in tertiary hospitals keep increasing, and academic credentials carry greater weight in professional title evaluation [4-5]. While external pressures effectively draw nurses' attention to academic advancement, learning motivation may fade rapidly once external incentives disappear. Administrators are recommended to set reasonable academic requirements while conducting career planning education, fostering academic atmosphere and showcasing successful postgraduate nurse alumni, to help nurses convert external pressure into internal growth motivation.

Multi-layer Transmission of Subjective Norms and Organizational Cultural Adjustment

Subjective norms form a progressive pressure transmission system spanning macro industrial academic standards, mesoscopic hospital management policies and micro peer groups. Moderate normative pressure stimulates ambition, yet over-reliance on mandatory requirements may trigger resistance and anxiety. Hospitals should provide substantial support including flexible

shift schedules, dedicated exam leave and tuition reimbursement, while building learning organizations through experience-sharing sessions and research salons. An organizational culture valuing comprehensive competence rather than academic credentials alone should be cultivated.

Systematic Bottlenecks in Perceived Behavioral Control and Breakthrough Pathways

Perceived behavioral control represents the weakest link transforming nurses' postgraduate intentions into actual behavior. Information scarcity, financial burdens and insufficient self-confidence create multi-layered barriers, while the triple conflict of work-family-study constitutes the deepest structural contradiction, disproportionately affecting married female nurses [6]. Comprehensive institutional support is required to address these bottlenecks: hospitals shall build dedicated

postgraduate information platforms, establish special education subsidies and provide psychological counseling for exam preparation. Departments may implement flexible shift arrangements and fixed daily study windows, while launching family-friendly support measures for nurses with childcare responsibilities. Differentiated

confidence-building programs should target senior nurses and candidates with previous exam failures.

Research Limitations and Future Prospects

This qualitative single-center study limits the generalizability of conclusions. Future multi-center quantitative surveys may test path effects across TPB dimensions, and intervention studies can verify the practical efficacy of integrated support schemes.

Conclusion

Nurses' intention to take postgraduate entrance examinations is interactively shaped by behavioral attitude, subjective norm and

perceived behavioral control. Under current industry conditions, external drivers including career promotion and rising academic thresholds serve as primary motivators, yet structural barriers concerning time, information, finance and psychology create a wide intention-action gap. Medical institutions shall implement systematic measures covering three dimensions: policy incentives (flexible scheduling, financial subsidies), environmental support (information platforms, learning culture) and psychological empowerment (confidence development, positive role models), to construct a supportive ecosystem for nurses' academic advancement and eliminate the final obstacles separating willingness from actual pursuit of postgraduate education.

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